

### EXAMINER'S AMENDMENT

Claims 1, 8, 11-13 are pending and under consideration. Claims 2-7, 9-10, 14-35 are canceled.

Applicant's arguments filed on 11/21/2011 with respect to the rejection of claims 1, 8, 11-13 under 35 USC & 112/New Matter has been withdrawn in view of the amendment dated 11/21/2011. The objection of claim 11 is withdrawn in view of the amendment dated 11/21/2011.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Alysia Finnegan telephonically on 01/26/2012.

The application has been amended as follows:

Claim 1. A nucleic acid molecule encoding a carcinoembryonic antigen (CEA) ~~comprising a sequence of nucleotides that encodes a CEA~~ fusion protein, wherein the CEA fusion protein comprises a human CEA protein comprising the amino acid sequence as set forth by SEQ ID NO: 20, wherein amino acids 679-702 are deleted, or variant thereof, fused to a subunit B of heat labile enterotoxin of E. coli (LTB); ~~wherein the CEA protein is a human CEA protein as set forth in SEQ ID NO:20 wherein amino acids 679-702 of SEQ ID NO:20 are deleted;~~ and wherein the fusion protein is capable of producing an immune response in a mammal.

Claim 11. A nucleic acid molecule encoding a carcinoembryonic antigen (CEA)  
~~comprising a sequence of nucleotides that encodes a CEA fusion protein, comprising a~~  
sequence of nucleotides as set forth in SEQ ID NO: 9, SEQ ID NO: 11, or SEQ ID NO:12,  
wherein the CEA fusion protein comprises a human CEA protein or variants thereof, fused to a  
subunit B of heat labile enterotoxin of E. coli (LTB); and wherein the fusion protein is capable of  
producing an immune response in a mammal;~~and wherein the sequence of nucleotides~~  
~~comprises a sequence of nucleotides as set forth in SEQ ID NO:9, SEQ ID NO:11, or SEQ ID~~  
~~NO:12.~~

The following is an examiner's statement of reasons for allowance: The art does not  
teach or suggest a nucleic acid molecule comprising a fusion protein of SEQ ID NO: 20 or of  
SEQ ID NO: 9, SEQ ID NO: 11, or SEQ ID NO:12, or variants thereof, fused to a subunit B of  
heat labile enterotoxin of E. coli (LTB).

Any comments considered necessary by applicant must be submitted no later than the  
payment of the issue fee and, to avoid processing delays, should preferably accompany the  
issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons  
for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner  
should be directed to MAGDALENE SGAGIAS whose telephone number is (571)272-3305. The  
examiner can normally be reached on Monday-Friday, 9-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Peter Paras can be reached on 571-272-4517. The fax phone number for the  
organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Magdalene K. Sgagias,  
Art Unit 1632

/Thaia N Ton/  
Primary Examiner, Art Unit 1632